

## **APPENDIX B**

# **PFPR Compliance Documentation (Sample Forms)**

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**Table A    Identification of Wastewater Sources**

**Table B    Evaluation of PFPR P2, Recycle, and Reuse Practices**

**Table C    Summary of PFPR Compliance Decisions**

**Table D    Identification of Wastewater Sources and Treatment  
Technologies**

**Table E    Summary and Evaluation of Test Results**

**Table A: Identification of Wastewater Sources**

| <b>Facility:</b> _____<br><b>Date:</b> _____   |        |                     |                  |                      | <b>Location:</b> _____<br><b>Prepared by:</b> _____ |                                |                                    |          |
|--|--------|---------------------|------------------|----------------------|---|--------------------------------|------------------------------------|----------|
| Stream Type  | Source | Batch or Continuous | Volume Generated | Generation Frequency | Active Ingredients                                  | Wastewater Matrix <sup>1</sup> | Wastewater Management <sup>2</sup> | Comments |
| <b>1. Shipping Container/ Drum Cleaning</b> - water or solvent rinses of the containers used to ship raw material, finished products, and/or waste products prior to reuse or disposal of the containers.  | 1.a.   |                     |                  |                      |   |                                |                                    |          |
|  | 1.b.   |                     |                  |                      |   |                                |                                    |          |
| <b>2. Bulk Tank Rinsate</b> - cleaning of the interior of any bulk storage tank containing raw materials, intermediate blends, or finished products associated with PFPR operations.   | 2.a.   |                     |                  |                      |   |                                |                                    |          |
|  | 2.b.   |                     |                  |                      |   |                                |                                    |          |
| <b>3. Formulating Equipment Interior Cleaning</b> - routine cleaning, cleaning due to product changeover, or special cleaning of the interior of any formulating equipment, including formulation and/or storage tanks, pipes, and hoses. Cleaning materials may include water, detergent, or solvent. | 3.a.   |                     |                  |                      |   |                                |                                    |          |
|  | 3.b.   |                     |                  |                      |   |                                |                                    |          |
|  | 3.c.   |                     |                  |                      |   |                                |                                    |          |
|  | 3.d.   |                     |                  |                      |   |                                |                                    |          |

<sup>1</sup> Inerts (e.g., emulsifiers, surfactants), solids, detergent, etc.

<sup>2</sup> RE=reuse, TR=treatment and reuse, TD=treatment and discharge, DI=indirect discharge, DD=direct discharge, IN=incineration, DP=off-site disposal

**Table A: Identification of Wastewater Sources**

| <b>Facility:</b> _____<br><b>Date:</b> _____   |        | <b>Location:</b> _____<br><b>Prepared by:</b> _____ |                  |                      |                    |                                |                                    |          |
|--|--------|---|------------------|----------------------|--------------------|--------------------------------|------------------------------------|----------|
| Stream Type  | Source | Batch or Continuous                                 | Volume Generated | Generation Frequency | Active Ingredients | Wastewater Matrix <sup>1</sup> | Wastewater Management <sup>2</sup> | Comments |
| <b>4. Packaging Equipment Interior Cleaning</b> - routine cleaning, cleaning due to product changeover, or special cleaning of the interior of any packaging equipment, including filling or storage tanks, pipes, and hoses. Cleaning materials may include water, detergent, or solvent.     | 4.a.   |   |                  |                      |                    |                                |                                    |          |
|  | 4.b.   |   |                  |                      |                    |                                |                                    |          |
|  | 4.c.   |   |                  |                      |                    |                                |                                    |          |
| <b>5. Repackaging Equipment Interior Cleaning</b> - routine cleaning, cleaning due to product changeover, or special cleaning of the interior of any repackaging equipment, including filling or storage tanks, pipes, and hoses. Cleaning materials may include water, detergent, or solvent. | 5.a.   |   |                  |                      |                    |                                |                                    |          |
|  | 5.b.   |   |                  |                      |                    |                                |                                    |          |
|  | 5.c.   |   |                  |                      |                    |                                |                                    |          |
|  | 5.d.   |   |                  |                      |                    |                                |                                    |          |
| <b>6. Aerosol (DOT) Leak Testing</b> - water used to perform aerosol leak tests for Department of Transportation (DOT) requirements (when cans have burst).  | 6.a.   |   |                  |                      |                    |                                |                                    |          |
|  | 6.b.   |   |                  |                      |                    |                                |                                    |          |

<sup>1</sup> Inerts (e.g., emulsifiers, surfactants), solids, detergent, etc.

<sup>2</sup> RE=reuse, TR=treatment and reuse, TD=treatment and discharge, DI=indirect discharge, DD=direct discharge, IN=incineration, DP=off-site disposal

**Table A: Identification of Wastewater Sources**

| <b>Facility:</b> _____<br><b>Date:</b> _____  |        |                     |                  |                      | <b>Location:</b> _____<br><b>Prepared by:</b> _____ |                                |                                    |          |
|---|--------|---------------------|------------------|----------------------|---|--------------------------------|------------------------------------|----------|
| Stream Type   | Source | Batch or Continuous | Volume Generated | Generation Frequency | Active Ingredients                                  | Wastewater Matrix <sup>1</sup> | Wastewater Management <sup>2</sup> | Comments |
| <b>7. Exterior Equipment Cleaning -</b><br><i>cleaning of the exterior of any formulating, packaging, or repackaging equipment, including tanks, pipes, hoses, conveyors, etc. Cleaning materials may include water, detergent, or solvent.</i> | 7.a.   |                     |                  |                      |   |                                |                                    |          |
|   | 7.b.   |                     |                  |                      |   |                                |                                    |          |
|   | 7.c.   |                     |                  |                      |   |                                |                                    |          |
| <b>8. Exterior Wall Cleaning -</b><br><i>cleaning of walls in the PFPR operations areas.</i>  | 8.a.   |                     |                  |                      |   |                                |                                    |          |
|   | 8.b.   |                     |                  |                      |   |                                |                                    |          |
| <b>9. Floor Washing - cleaning of</b><br><i>floors in the PFPR operations areas.</i>  | 9.a.   |                     |                  |                      |   |                                |                                    |          |
|   | 9.b.   |                     |                  |                      |   |                                |                                    |          |
|   | 9.c.   |                     |                  |                      |   |                                |                                    |          |

<sup>1</sup> Inerts (e.g., emulsifiers, surfactants), solids, detergent, etc.

<sup>2</sup> RE=reuse, TR=treatment and reuse, TD=treatment and discharge, DI=indirect discharge, DD=direct discharge, IN=incineration, DP=off-site disposal

**Table A: Identification of Wastewater Sources**

| <b>Facility:</b> _____<br><b>Date:</b> _____  |        |                     |                  |                      | <b>Location:</b> _____<br><b>Prepared by:</b> _____ |                                |                                    |          |
|---|--------|---------------------|------------------|----------------------|---|--------------------------------|------------------------------------|----------|
| Stream Type   | Source | Batch or Continuous | Volume Generated | Generation Frequency | Active Ingredients                                  | Wastewater Matrix <sup>1</sup> | Wastewater Management <sup>2</sup> | Comments |
| <b>10. Leaks and Spills -</b> <i>cleaning of leaks and/or spills which occur during PFPR operations.</i>  | 10.a.  |                     |                  |                      |   |                                |                                    |          |
|   | 10.b.  |                     |                  |                      |   |                                |                                    |          |
| <b>11. Safety Equipment Cleaning -</b> <i>cleaning of personal protective equipment (e.g., gloves, splash aprons, boots, respirators) worn by employees in PFPR operations areas.</i> | 11.a.  |                     |                  |                      |   |                                |                                    |          |
|   | 11.b.  |                     |                  |                      |   |                                |                                    |          |
| <b>12. Air Pollution Control Scrubbers -</b> <i>wet scrubbers used to control air emissions from PFPR operations.</i>   | 12.a.  |                     |                  |                      |   |                                |                                    |          |
| <b>13. Laboratory Equipment Cleaning -</b> <i>Initial rinse of the retain sample container.</i>   | 13.a.  |                     |                  |                      |   |                                |                                    |          |

<sup>1</sup> Inerts (e.g., emulsifiers, surfactants), solids, detergent, etc.

<sup>2</sup> RE=reuse, TR=treatment and reuse, TD=treatment and discharge, DI=indirect discharge, DD=direct discharge, IN=incineration, DP=off-site disposal

**Table A: Identification of Wastewater Sources**

| <b>Facility:</b> _____<br><b>Date:</b> _____   |        |                     |                  | <b>Location:</b> _____<br><b>Prepared by:</b> _____ |                    |                                |                                    |          |
|--|--------|---------------------|------------------|---|--------------------|--------------------------------|------------------------------------|----------|
| Stream Type  | Source | Batch or Continuous | Volume Generated | Generation Frequency                                | Active Ingredients | Wastewater Matrix <sup>1</sup> | Wastewater Management <sup>2</sup> | Comments |
| <i>Other streams <u>not</u> specifically included in the P2 Alternative</i>  |        |                     |                  |   |                    |                                |                                    |          |
| <b>14. Contaminated Precipitation Runoff</b> - runoff from raw material storage, loading pads, final product storage, and outdoor production areas.  | 14.a.  |                     |                  |   |                    |                                |                                    |          |
|  | 14.b.  |                     |                  |   |                    |                                |                                    |          |
| <b>15. Laboratory Equipment Cleaning</b> - Water used to clean analytical equipment and glassware.   | 15.a.  |                     |                  |   |                    |                                |                                    |          |
| <b>16. Aerosol (DOT) Leak Testing</b> - Water used in non-continuous overflow baths to perform aerosol leak tests for DOT requirements when no cans have burst from the last water change out. | 16.a.  |                     |                  |   |                    |                                |                                    |          |
|  | 16.b.  |                     |                  |   |                    |                                |                                    |          |
| <b>17. Other Sources</b> - other sources of waste not specifically mentioned (please specify).   | 17.a.  |                     |                  |   |                    |                                |                                    |          |
|  | 17.b.  |                     |                  |   |                    |                                |                                    |          |
|  | 17.c.  |                     |                  |   |                    |                                |                                    |          |

<sup>1</sup> Inerts (e.g., emulsifiers, surfactants), solids, detergent, etc.

<sup>2</sup> RE=reuse, TR=treatment and reuse, TD=treatment and discharge, DI=indirect discharge, DD=direct discharge, IN=incineration, DP=off-site disposal

**Table B: Evaluation of PFPR P2, Recycle, and Reuse Practices**

| <b>Facility:</b> _____<br><b>Date:</b> _____ |          |  |                                |  | <b>Location:</b> _____<br><b>Prepared by:</b> _____            |  |          |  |
|--|----------|--|--------------------------------|--|--|--|----------|--|
| Table 8<br>Listed<br>Practice <sup>1</sup>   | Practice | Does<br>Facility<br>Use this<br>Practice?  | Source Code<br>from<br>Table A | Extent of Use of this<br>Practice Observed During<br>Audit | Could Facility<br>Implement this<br>Practice in the<br>Future? | Required<br>Justification for<br>Modification <sup>2</sup> | Comments |  |
| <b>1. Flow Reduction</b>                     |          |  |                                |  |  |  |          |  |
| 1-1  | 1        | Hoses used for rinsing have spray nozzles or other flow reduction devices.   |                                |  |  |  |          |  |
|  |          | Low-volume/high-pressure rinsing equipment is used for rinsing PFPR equipment interiors (specify type of equipment) when rinsing with water. |                                |  |  |  |          |  |
| 1-2  | 1        | A floor scrubbing machine and/or mop and bucket is used to clean floors in liquid production areas.  |                                |  |  |  |          |  |
| 1-3  | 3        | Dry production areas are swept or vacuumed prior to rinsing with water.  |                                |  |  |  |          |  |
|  |          | Dry production areas are rinsed with water.  |                                |  |  |  |          |  |
| <b>2. Good Housekeeping Practices</b>        |          |  |                                |  |  |  |          |  |
| 2-1  | 2a       | Facility performs preventive maintenance on valves and fittings and repairs leaks in a timely manner.  |                                |  |  |  |          |  |
| 2-2  | 2b       | Facility places drip pans under valves and fittings where hoses and lines are routinely connected and disconnected.                          |                                |  |  |  |          |  |
| 2-3  | 2c       | Facility immediately cleans up spills and leaks in outdoor bulk storage and process areas.   |                                |  |  |  |          |  |
| <b>3. DOT Test Bath</b>                      |          |  |                                |  |  |  |          |  |
| 3-1  | 5        | Facility operates continuous overflow test baths with some recirculation of water.   |                                |  |  |  |          |  |

<sup>1</sup> 40 CFR 455.67

<sup>2</sup> Insert the following modification codes in the column titled "Required Justification for Modification":  
 ALTDISPOSE, BIOGROWTH, BREAKCAA, DETERGENT, DROP, INERT, NARROW, PACKAGE, RECOVERY, REFURB, SPACE, OTHER  
 (Modification Code Sheet at end of table contains a detailed explanation of each code.)

**Table B: Evaluation of PFPR P2, Recycle, and Reuse Practices**

| <b>Facility:</b> _____<br><b>Date:</b> _____                     |                                      |  |                                  |                          | <b>Location:</b> _____<br><b>Prepared by:</b> _____  |   |  |          |
|--|--------------------------------------|--|----------------------------------|--------------------------|--|---|--|----------|
|  | Table 8 Listed Practice <sup>1</sup> | Practice   | Does Facility Use this Practice? | Source Code from Table A | Extent of Use of this Practice Observed During Audit | Could Facility Implement this Practice in the Future? | Required Justification for Modification <sup>2</sup> | Comments |
| <b>4. Air Pollution Controls</b>                                 |                                      |  |                                  |                          |  |   |  |          |
| 4-1  | 6                                    | Facility operates wet scrubbers with recirculation (periodic blowdown is allowed as needed).                   |                                  |                          |  |   |  |          |
|  |                                      |  |                                  |                          |  |   |  |          |
| <b>5. Reuse of Drum Rinsate of Water-Based Products</b>          |                                      |  |                                  |                          |  |   |  |          |
| 5-1  | 7                                    | Facility reuses drum/shipping container rinsate directly into product formulations.                            |                                  |                          |  |   |  |          |
| 5-2  | 7                                    | Facility stores drum/shipping container rinsate for use in future formulations of same or compatible products. |                                  |                          |  |   |  |          |
| 5-3  | 1,7                                  | Facility operates a staged drum rinsing station (countercurrent rinsing).                                      |                                  |                          |  |   |  |          |
| <b>6. Drum Rinsing for Formulation of Solvent-Based Products</b> |                                      |  |                                  |                          |  |   |  |          |
| 6-1  | 8                                    | Facility reuses drum/shipping container rinsate directly into product formulations.                            |                                  |                          |  |   |  |          |
| 6-2  | 8                                    | Facility stores drum/shipping container rinsate for use in future formulations of same or compatible products. |                                  |                          |  |   |  |          |
| 6-3  | NA                                   | Facility uses base solvent to rinse drums.   |                                  |                          |  |   |  |          |

<sup>1</sup> 40 CFR 455.67

<sup>2</sup> Insert the following modification codes in the column titled "Required Justification for Modification":  
 ALTDISPOSE, BIOGROWTH, BREAKCAA, DETERGENT, DROP, INERT, NARROW, PACKAGE, RECOVERY, REFURB, SPACE, OTHER  
 (Modification Code Sheet at end of table contains a detailed explanation of each code.)

**Table B: Evaluation of PFPR P2, Recycle, and Reuse Practices**

| <b>Facility:</b> _____<br><b>Date:</b> _____                        |  |  |   |                                | <b>Location:</b> _____<br><b>Prepared by:</b> _____        |  |  |          |
|---|--|--|---|--------------------------------|--|--|--|----------|
|   | Table 8<br>Listed<br>Practice <sup>1</sup> | Practice   | Does<br>Facility<br>Use this<br>Practice? | Source Code<br>from<br>Table A | Extent of Use of this<br>Practice Observed During<br>Audit | Could Facility<br>Implement this<br>Practice in the<br>Future? | Required<br>Justification for<br>Modification <sup>2</sup> | Comments |
| <b>7. Dedicated Equipment for Solvent- and Water-Based Products</b> |  |  |   |                                |  |  |  |          |
| 7-1   | 9  | Facility dedicates PFPR production equipment to water-based vs. solvent-based products. Dedicated solvent-based or water-based equipment may be used on a non-routine basis for non-dedicated operations, but facility may not discharge the aqueous changeover rinsate as part of their P2 allowable discharge. |   |                                |  |  |  |          |
|   |  |  |   |                                |  |  |  |          |
|   |  |  |   |                                |  |  |  |          |
| <b>8. Interior Rinsate Storage and Reuse</b>                        |  |  |   |                                |  |  |  |          |
| 8-1   | 10   | Interior rinsate is stored for reuse in future formulations of the same or compatible product (note: does not include drum/shipping container rinsate).  |   |                                |  |  |  |          |
|   |  |  |   |                                |  |  |  |          |
|   |  |  |   |                                |  |  |  |          |
|   |  |  |   |                                |  |  |  |          |
| 8-2   | 4  | Dry carrier material is stored and reused in future formulation of the same or compatible product or disposed of as solid waste.   |   |                                |  |  |  |          |
| 8-3   | 4  | Interiors of dry formulation equipment are cleaned with dry carrier prior to water rinse.  |   |                                |  |  |  |          |

<sup>1</sup> 40 CFR 455.67

<sup>2</sup> Insert the following modification codes in the column titled "Required Justification for Modification":  
 ALTDISPOSE, BIOGROWTH, BREAKCAA, DETERGENT, DROP, INERT, NARROW, PACKAGE, RECOVERY, REFURB, SPACE, OTHER  
 (Modification Code Sheet at end of table contains a detailed explanation of each code.)

**Table B: Evaluation of PFPR P2, Recycle, and Reuse Practices**

| <b>Facility:</b> _____<br><b>Date:</b> _____ |                                      |  |                                  |                          | <b>Location:</b> _____<br><b>Prepared by:</b> _____  |   |  |          |
|--|--------------------------------------|--|----------------------------------|--------------------------|--|---|--|----------|
|  | Table 8 Listed Practice <sup>1</sup> | Practice   | Does Facility Use this Practice? | Source Code from Table A | Extent of Use of this Practice Observed During Audit | Could Facility Implement this Practice in the Future? | Required Justification for Modification <sup>2</sup> | Comments |
| <b>9. Dedicated Process Equipment</b>        |                                      |  |                                  |                          |  |   |  |          |
| 9-1  | NA                                   | Facility dedicates some portion of equipment to:   |                                  |                          |  |   |  |          |
|  |                                      | i. Top production products   |                                  |                          |  |   |  |          |
|  |                                      | ii. Hard-to-clean products   |                                  |                          |  |   |  |          |
|  |                                      | iii. Product families (attach definition of product families)                                  |                                  |                          |  |   |  |          |
| 9-2  | NA                                   | Facility sequences production on dedicated process equipment.                                  |                                  |                          |  |   |  |          |
| <b>10. Inventory Management</b>              |                                      |  |                                  |                          |  |   |  |          |
| 10-1   | NA                                   | Facility has an inventory management system for raw material, product, and wastewater rinsate. |                                  |                          |  |   |  |          |
| 10-2   | NA                                   | System includes one or more of the following:  |                                  |                          |  |   |  |          |
|  |                                      | i. Central storage and access controls.  |                                  |                          |  |   |  |          |
|  |                                      | ii. Computerized inventory control.  |                                  |                          |  |   |  |          |
|  |                                      | iii. Protection from precipitation.  |                                  |                          |  |   |  |          |

<sup>1</sup> 40 CFR 455.67

<sup>2</sup> Insert the following modification codes in the column titled "Required Justification for Modification":  
 ALTDISPOSE, BIOGROWTH, BREAKCAA, DETERGENT, DROP, INERT, NARROW, PACKAGE, RECOVERY, REFURB, SPACE, OTHER  
 (Modification Code Sheet at end of table contains a detailed explanation of each code.)

**Table B: Evaluation of PFPR P2, Recycle, and Reuse Practices**

| <b>Facility:</b> _____<br><b>Date:</b> _____                  |                                      |  |                                  |                          | <b>Location:</b> _____<br><b>Prepared by:</b> _____  |   |  |          |
|---|--------------------------------------|--|----------------------------------|--------------------------|--|---|--|----------|
|   | Table 8 Listed Practice <sup>1</sup> | Practice   | Does Facility Use this Practice? | Source Code from Table A | Extent of Use of this Practice Observed During Audit | Could Facility Implement this Practice in the Future? | Required Justification for Modification <sup>2</sup> | Comments |
| <b>11. Training and Written Standard Operating Procedures</b> |                                      |  |                                  |                          |  |   |  |          |
| 11-1  | NA                                   | Facility provides personnel with P2 training.              |                                  |                          |  |   |  |          |
| 11-2  | NA                                   | Facility has employee incentive programs encouraging P2.   |                                  |                          |  |   |  |          |
| 11-3  | NA                                   | Facility has documentation of P2 practices and procedures. |                                  |                          |  |   |  |          |
| <b>12. Other P2 Practices/Equipment</b>                       |                                      |  |                                  |                          |  |   |  |          |
| 12-1  | NA                                   |  |                                  |                          |  |   |  |          |
| 12-2  | NA                                   |  |                                  |                          |  |   |  |          |
| 12-3  | NA                                   |  |                                  |                          |  |   |  |          |
| 12-4  | NA                                   |  |                                  |                          |  |   |  |          |
| 12-5  | NA                                   |  |                                  |                          |  |   |  |          |
| 12-6  | NA                                   |  |                                  |                          |  |   |  |          |

<sup>1</sup> 40 CFR 455.67

<sup>2</sup> Insert the following modification codes in the column titled "Required Justification for Modification":  
 ALTDISPOSE, BIOGROWTH, BREAKCAA, DETERGENT, DROP, INERT, NARROW, PACKAGE, RECOVERY, REFURB, SPACE, OTHER  
 (Modification Code Sheet at end of table contains a detailed explanation of each code.)

## Modification Code Sheet

| Table B Practice | Table 8 Listed Practice | Modification Code  | Description  |
|------------------|-------------------------|--------------------|--|
| 1-1              | 1                       | NARROW             | Rinsing narrow transfer lines or piping where sufficient rinsing is better achieved by flushing with water.  |
| 4-1              | 6                       | BREAKCAA           | Facility demonstrates that would not be able to meet Resource Conservation Recovery Act (RCRA) or Clean Air Act (CAA) requirements.  |
| 5-1 to 5-3       | 7                       | INERT              | Drum/shipping container holds inert ingredient(s) only and<br>(1) the facility can demonstrate that, after using water conservation practices, the large concentration of inert ingredients in the formulation creates more volume than could feasibly be reused; or<br>(2) the facility can demonstrate that the concentration of the inert in the formulation is so small that the reuse would cause a formulation to exceed the ranges allowed in the Confidential Statement of Formula (CSF) (40 CFR 158.155). |
| 6-1 to 6-3       | 8                       | REFURB             | Drums/shipping containers are going to a drum refurbisher/recycler who will only accept drums rinsed with water.   |
|                  |                         | INERT              | Drum/shipping container holds inert ingredient(s) only and<br>(1) the facility can demonstrate that, after using water conservation practices, the large concentration of inert ingredients in the formulation creates more volume than could feasibly be reused; or<br>(2) the facility can demonstrate that the concentration of the inert in the formulation is so small that the reuse would cause a formulation to exceed the ranges allowed in the Confidential Statement of Formula (CSF) (40 CFR 158.155). |
| 7-1              | 9                       | RECOVERY           | Facility has installed and is using a solvent recovery system for the changeover rinsate (can also be used for other solvent recovery).  |
| 8-1              | 10                      | ALTDISPOSE         | PAI manufacturer (or formulator contracting for toll formulating) has directed otherwise (i.e., send back to them or send for off-site disposal).  |
|                  |                         | BIOGROWTH          | Facility has evidence of biological growth or product deterioration over a typical storage period (review facility data).  |
|                  |                         | DETERGENT          | Facility has demonstrated that it must use a detergent to clean equipment.   |
|                  |                         | DROP               | Facility is dropping registration or production of the formulation and there is no compatible formulation for reuse of the rinsates or facility can provide reasonable explanation of why it does not anticipate formulation of same or compatible formulation within the next twelve months.  |
|                  |                         | PACKAGE            | Facility only performs packaging of the pesticide product from which interior rinsate is generated.  |
|                  |                         | SPACE              | Facility has space limitations, BUT must still store rinsates for most frequently produced products.   |
| NA               | NA                      | OTHER <sup>1</sup> |  |

<sup>1</sup> Other practices must be approved by the permitting/control authority prior to discharge.

**Table C: Summary of PFPR Compliance Decisions**

| <b>Facility:</b> _____<br><b>Date:</b> _____   |        | <b>Location:</b> _____<br><b>Prepared by:</b> _____ |                       |                           |                           |   |
|--|--------|---|-----------------------|---------------------------|---------------------------|---|
| Stream Type  | Source | Preliminary Compliance Decision                     | Comments <sup>1</sup> | Wastewater to be Treated? | Final Compliance Decision | Approval Date for Nonlisted Modifications |
| <b>1. Shipping Container/ Drum Cleaning</b> - water or solvent rinses of the containers used to ship raw material, finished products, and/or waste products prior to reuse or disposal of the containers.  | 1.a.   |   |                       |                           |                           |   |
|  | 1.b.   |   |                       |                           |                           |   |
| <b>2. Bulk Tank Rinsate</b> - cleaning of the interior of any bulk storage tank containing raw materials, intermediate blends, or finished products associated with PFPR operations.   | 2.a.   |   |                       |                           |                           |   |
|  | 2.b.   |   |                       |                           |                           |   |
| <b>3. Formulating Equipment Interior Cleaning</b> - routine cleaning, cleaning due to product changeover, or special cleaning of the interior of any formulating equipment, including formulation and/or storage tanks, pipes, and hoses. Cleaning materials may include water, detergent, or solvent. | 3.a.   |   |                       |                           |                           |   |
|  | 3.b.   |   |                       |                           |                           |   |
|  | 3.c.   |   |                       |                           |                           |   |
|  | 3.d.   |   |                       |                           |                           |   |

<sup>1</sup> Insert the following modification codes in the column titled "Comments":  
 ALTDISPOSE, BIOGROWTH, BREAKCAA, DETERGENT, DROP, INERT, NARROW, PACKAGE, RECOVERY, REFURB, SPACE, OTHER  
 (Modification Code Sheet at end of table contains a detailed explanation of each code.)

**Table C: Summary of PFPR Compliance Decisions**

| <b>Facility:</b> _____<br><b>Date:</b> _____   |        | <b>Location:</b> _____<br><b>Prepared by:</b> _____ |                       |                           |                           |   |
|--|--------|---|-----------------------|---------------------------|---------------------------|---|
| Stream Type  | Source | Preliminary Compliance Decision                     | Comments <sup>1</sup> | Wastewater to be Treated? | Final Compliance Decision | Approval Date for Nonlisted Modifications |
| <b>4. Packaging Equipment Interior Cleaning</b> - routine cleaning, cleaning due to product changeover, or special cleaning of the interior of any packaging equipment, including filling or storage tanks, pipes, and hoses. Cleaning materials may include water, detergent, or solvent.     | 4.a.   |   |                       |                           |                           |   |
|  | 4.b.   |   |                       |                           |                           |   |
|  | 4.c.   |   |                       |                           |                           |   |
| <b>5. Repackaging Equipment Interior Cleaning</b> - routine cleaning, cleaning due to product changeover, or special cleaning of the interior of any repackaging equipment, including filling or storage tanks, pipes, and hoses. Cleaning materials may include water, detergent, or solvent. | 5.a.   |   |                       |                           |                           |   |
|  | 5.b.   |   |                       |                           |                           |   |
|  | 5.c.   |   |                       |                           |                           |   |
|  | 5.d.   |   |                       |                           |                           |   |
| <b>6. Aerosol (DOT) Leak Testing</b> - water used to perform aerosol leak tests for Department of Transportation (DOT) requirements (when cans have burst).  | 6.a.   |   |                       |                           |                           |   |
|  | 6.b.   |   |                       |                           |                           |   |

<sup>1</sup> Insert the following modification codes in the column titled "Comments":  
 ALTDISPOSE, BIOGROWTH, BREAKCAA, DETERGENT, DROP, INERT, NARROW, PACKAGE, RECOVERY, REFURB, SPACE, OTHER  
 (Modification Code Sheet at end of table contains a detailed explanation of each code.)

**Table C: Summary of PFPR Compliance Decisions**

| <b>Facility:</b> _____<br><b>Date:</b> _____  |        | <b>Location:</b> _____<br><b>Prepared by:</b> _____ |                       |                           |                           |   |
|---|--------|---|-----------------------|---------------------------|---------------------------|---|
| Stream Type   | Source | Preliminary Compliance Decision                     | Comments <sup>1</sup> | Wastewater to be Treated? | Final Compliance Decision | Approval Date for Nonlisted Modifications |
| <b>7. Exterior Equipment Cleaning -</b><br><i>cleaning of the exterior of any formulating, packaging, or repackaging equipment, including tanks, pipes, hoses, conveyors, etc. Cleaning materials may include water, detergent, or solvent.</i> | 7.a.   |   |                       |                           |                           |   |
|   | 7.b.   |   |                       |                           |                           |   |
|   | 7.c.   |   |                       |                           |                           |   |
| <b>8. Exterior Wall Cleaning -</b><br><i>cleaning of walls in the PFPR operations areas.</i>  | 8.a.   |   |                       |                           |                           |   |
|   | 8.b.   |   |                       |                           |                           |   |
| <b>9. Floor Washing -</b> <i>cleaning of floors in the PFPR operations areas.</i>   | 9.a.   |   |                       |                           |                           |   |
|   | 9.b.   |   |                       |                           |                           |   |
|   | 9.c.   |   |                       |                           |                           |   |

<sup>1</sup> Insert the following modification codes in the column titled "Comments":  
 ALTDISPOSE, BIOGROWTH, BREAKCAA, DETERGENT, DROP, INERT, NARROW, PACKAGE, RECOVERY, REFURB, SPACE, OTHER  
 (Modification Code Sheet at end of table contains a detailed explanation of each code.)

**Table C: Summary of PFPR Compliance Decisions**

| <b>Facility:</b> _____<br><b>Date:</b> _____   |        | <b>Location:</b> _____<br><b>Prepared by:</b> _____ |                       |                           |                           |   |
|--|--------|---|-----------------------|---------------------------|---------------------------|---|
| Stream Type  | Source | Preliminary Compliance Decision                     | Comments <sup>1</sup> | Wastewater to be Treated? | Final Compliance Decision | Approval Date for Nonlisted Modifications |
| <b>10. Leaks and Spills - cleaning of leaks and/or spills which occur during PFPR operations.</b>  | 10.a.  |   |                       |                           |                           |   |
|  | 10.b.  |   |                       |                           |                           |   |
| <b>11. Safety Equipment Cleaning - cleaning of personal protective equipment (e.g., gloves, splash aprons, boots, respirators) worn by employees in PFPR operations areas.</b> | 11.a.  |   |                       |                           |                           |   |
|  | 11.b.  |   |                       |                           |                           |   |
| <b>12. Air Pollution Control Scrubbers - wet scrubbers used to control air emissions from PFPR operations.</b>   | 12.a.  |   |                       |                           |                           |   |
| <b>13. Laboratory Equipment Cleaning - Initial rinse of the retain sample container.</b>   | 13.a.  |   |                       |                           |                           |   |

<sup>1</sup> Insert the following modification codes in the column titled "Comments":  
 ALTDISPOSE, BIOGROWTH, BREAKCAA, DETERGENT, DROP, INERT, NARROW, PACKAGE, RECOVERY, REFURB, SPACE, OTHER  
 (Modification Code Sheet at end of table contains a detailed explanation of each code.)

**Table C: Summary of PFPR Compliance Decisions**

| <b>Facility:</b> _____<br><b>Date:</b> _____   |        | <b>Location:</b> _____<br><b>Prepared by:</b> _____ |                       |                           |                           |   |
|--|--------|---|-----------------------|---------------------------|---------------------------|---|
| Stream Type  | Source | Preliminary Compliance Decision                     | Comments <sup>1</sup> | Wastewater to be Treated? | Final Compliance Decision | Approval Date for Nonlisted Modifications |
| <i>Other streams <u>not</u> specifically included in the P2 Alternative</i>  |        |   |                       |                           |                           |   |
| <b>14. Contaminated Precipitation Runoff</b> - runoff from raw material storage, loading pads, final product storage, and outdoor production areas.  | 14.a.  |   |                       |                           |                           |   |
|  | 14.b.  |   |                       |                           |                           |   |
| <b>15. Laboratory Equipment Cleaning</b> - Water used to clean analytical equipment and glassware.   | 15.a.  |   |                       |                           |                           |   |
| <b>16. Aerosol (DOT) Leak Testing</b> - Water used in non-continuous overflow baths to perform aerosol leak tests for DOT requirements when no cans have burst from the last water change out. | 16.a.  |   |                       |                           |                           |   |
|  | 16.b.  |   |                       |                           |                           |   |
| <b>17. Other Sources</b> - other sources of waste not specifically mentioned (please specify).   | 17.a.  |   |                       |                           |                           |   |
|  | 17.b.  |   |                       |                           |                           |   |
|  | 17.c.  |   |                       |                           |                           |   |

<sup>1</sup> Insert the following modification codes in the column titled "Comments":  
 ALTDISPOSE, BIOGROWTH, BREAKCAA, DETERGENT, DROP, INERT, NARROW, PACKAGE, RECOVERY, REFURB, SPACE, OTHER  
 (Modification Code Sheet at end of table contains a detailed explanation of each code.)

## Modification Code Sheet

| Table B Practice | Table 8 Listed Practice | Modification Code  | Description  |
|------------------|-------------------------|--------------------|--|
| 1-1              | 1                       | NARROW             | Rinsing narrow transfer lines or piping where sufficient rinsing is better achieved by flushing with water.  |
| 4-1              | 6                       | BREAKCAA           | Facility demonstrates that would not be able to meet Resource Conservation Recovery Act (RCRA) or Clean Air Act (CAA) requirements.  |
| 5-1 to 5-3       | 7                       | INERT              | Drum/shipping container holds inert ingredient(s) only and<br>(1) the facility can demonstrate that, after using water conservation practices, the large concentration of inert ingredients in the formulation creates more volume than could feasibly be reused; or<br>(2) the facility can demonstrate that the concentration of the inert in the formulation is so small that the reuse would cause a formulation to exceed the ranges allowed in the Confidential Statement of Formula (CSF) (40 CFR 158.155). |
| 6-1 to 6-3       | 8                       | REFURB             | Drums/shipping containers are going to a drum refurbisher/recycler who will only accept drums rinsed with water.   |
|                  |                         | INERT              | Drum/shipping container holds inert ingredient(s) only and<br>(1) the facility can demonstrate that, after using water conservation practices, the large concentration of inert ingredients in the formulation creates more volume than could feasibly be reused; or<br>(2) the facility can demonstrate that the concentration of the inert in the formulation is so small that the reuse would cause a formulation to exceed the ranges allowed in the Confidential Statement of Formula (CSF) (40 CFR 158.155). |
| 7-1              | 9                       | RECOVERY           | Facility has installed and is using a solvent recovery system for the changeover rinsate (can also be used for other solvent recovery).  |
| 8-1              | 10                      | ALTDISPOSE         | PAI manufacturer (or formulator contracting for toll formulating) has directed otherwise (i.e., send back to them or send for off-site disposal).  |
|                  |                         | BIOGROWTH          | Facility has evidence of biological growth or product deterioration over a typical storage period (review facility data).  |
|                  |                         | DETERGENT          | Facility has demonstrated that it must use a detergent to clean equipment.   |
|                  |                         | DROP               | Facility is dropping registration or production of the formulation and there is no compatible formulation for reuse of the rinsates or facility can provide reasonable explanation of why it does not anticipate formulation of same or compatible formulation within the next twelve months.  |
|                  |                         | PACKAGE            | Facility only performs packaging of the pesticide product from which interior rinsate is generated.  |
|                  |                         | SPACE              | Facility has space limitations, BUT must still store rinsates for most frequently produced products.   |
| NA               | NA                      | OTHER <sup>1</sup> |  |

<sup>1</sup> Other practices must be approved by the permitting/control authority prior to discharge.

**Table D: Identification of Wastewater Sources and Treatment Technologies**

| <b>Facility:</b> _____   |        |                      |                  | <b>Location:</b> _____           |   |                                   |                                       |
|--|--------|----------------------|------------------|----------------------------------|---|-----------------------------------|---------------------------------------|
| <b>Date:</b> _____   |        |                      |                  | <b>Prepared by:</b> _____        |   |                                   |                                       |
| Stream Type <sup>1</sup>   | Source | Potential Pollutants |                  | Wastewater Treatment Information |   |                                   | Characteristics That Hinder Treatment |
|  |        | Active Ingredients   | Other Pollutants | Table 10 Technology <sup>2</sup> | Alternate Treatment Technology <sup>2</sup> | Source for Alternative Technology |                                       |
| <b>1. Shipping Container/ Drum Cleaning</b> - water or solvent rinses of the containers used to ship raw material, finished products, and/or waste products prior to reuse or disposal of the containers.  | 1.a.   |                      |                  |                                  |   |                                   |                                       |
|  | 1.b.   |                      |                  |                                  |   |                                   |                                       |
| <b>2. Bulk Tank Rinsate</b> - cleaning of the interior of any bulk storage tank containing raw materials, intermediate blends, or finished products associated with PFPR operations.   | 2.a.   |                      |                  |                                  |   |                                   |                                       |
|  | 2.b.   |                      |                  |                                  |   |                                   |                                       |
| <b>3. Formulating Equipment Interior Cleaning</b> - routine cleaning, cleaning due to product changeover, or special cleaning of the interior of any formulating equipment, including formulation and/or storage tanks, pipes, and hoses. Cleaning materials may include water, detergent, or solvent. | 3.a.   |                      |                  |                                  |   |                                   |                                       |
|  | 3.b.   |                      |                  |                                  |   |                                   |                                       |
|  | 3.c.   |                      |                  |                                  |   |                                   |                                       |
|  | 3.d.   |                      |                  |                                  |   |                                   |                                       |

<sup>1</sup> Stream types marked with an asterisk ("\*") do not require treatment prior to discharge to a POTW under the final PFPR pretreatment standards; however, facilities may be required to perform pretreatment by the control authority to meet local limits. Stream types marked with a plus ("+") do not require treatment prior to discharge to a POTW if they have not been commingled with stream types that do require pretreatment.

<sup>2</sup> HD = hydrolysis, AC = activated carbon, PT = precipitation, CO = chemical oxidation, P2 = pollution prevention, OT = other \_\_\_\_\_

**Table D: Identification of Wastewater Sources and Treatment Technologies**

| <b>Facility:</b> _____   |        |                      |                  | <b>Location:</b> _____           |   |                                   |                                       |
|--|--------|----------------------|------------------|----------------------------------|---|-----------------------------------|---------------------------------------|
| <b>Date:</b> _____   |        |                      |                  | <b>Prepared by:</b> _____        |   |                                   |                                       |
| Stream Type <sup>1</sup>   | Source | Potential Pollutants |                  | Wastewater Treatment Information |   |                                   | Characteristics That Hinder Treatment |
|  |        | Active Ingredients   | Other Pollutants | Table 10 Technology <sup>2</sup> | Alternate Treatment Technology <sup>2</sup> | Source for Alternative Technology |                                       |
| <b>4. Packaging Equipment Interior Cleaning</b> - routine cleaning, cleaning due to product changeover, or special cleaning of the interior of any packaging equipment, including filling or storage tanks, pipes, and hoses. Cleaning materials may include water, detergent, or solvent.     | 4.a.   |                      |                  |                                  |   |                                   |                                       |
|  | 4.b.   |                      |                  |                                  |   |                                   |                                       |
|  | 4.c.   |                      |                  |                                  |   |                                   |                                       |
| <b>5. Repackaging Equipment Interior Cleaning</b> - routine cleaning, cleaning due to product changeover, or special cleaning of the interior of any repackaging equipment, including filling or storage tanks, pipes, and hoses. Cleaning materials may include water, detergent, or solvent. | 5.a.   |                      |                  |                                  |   |                                   |                                       |
|  | 5.b.   |                      |                  |                                  |   |                                   |                                       |
|  | 5.c.   |                      |                  |                                  |   |                                   |                                       |
| <b>*6. Aerosol (DOT) Leak Testing</b> - water used to perform aerosol leak tests for Department of Transportation (DOT) requirements (when cans have burst).   | 6.a.   |                      |                  |                                  |   |                                   |                                       |
|  | 6.b.   |                      |                  |                                  |   |                                   |                                       |

<sup>1</sup> Stream types marked with an asterisk ("\*") do not require treatment prior to discharge to a POTW under the final PFPR pretreatment standards; however, facilities may be required to perform pretreatment by the control authority to meet local limits. Stream types marked with a plus ("+") do not require treatment prior to discharge to a POTW if they have not been commingled with stream types that do require pretreatment.

<sup>2</sup> HD = hydrolysis, AC = activated carbon, PT = precipitation, CO = chemical oxidation, P2 = pollution prevention, OT = other \_\_\_\_\_

**Table D: Identification of Wastewater Sources and Treatment Technologies**

| <b>Facility:</b> _____   |        |                      |                  | <b>Location:</b> _____           |   |                                   |                                       |
|--|--------|----------------------|------------------|----------------------------------|---|-----------------------------------|---------------------------------------|
| <b>Date:</b> _____   |        |                      |                  | <b>Prepared by:</b> _____        |   |                                   |                                       |
| Stream Type <sup>1</sup>   | Source | Potential Pollutants |                  | Wastewater Treatment Information |   |                                   | Characteristics That Hinder Treatment |
|  |        | Active Ingredients   | Other Pollutants | Table 10 Technology <sup>2</sup> | Alternate Treatment Technology <sup>2</sup> | Source for Alternative Technology |                                       |
| <b>+7. Exterior Equipment Cleaning</b><br><i>- cleaning of the exterior of any formulating, packaging, or repackaging equipment, including tanks, pipes, hoses, conveyors, etc. Cleaning materials may include water, detergent, or solvent.</i> | 7.a.   |                      |                  |                                  |   |                                   |                                       |
|  | 7.b.   |                      |                  |                                  |   |                                   |                                       |
|  | 7.c.   |                      |                  |                                  |   |                                   |                                       |
| <b>+8. Exterior Wall Cleaning -</b><br><i>cleaning of walls in the PFPR operations areas.</i>  | 8.a.   |                      |                  |                                  |   |                                   |                                       |
|  | 8.b.   |                      |                  |                                  |   |                                   |                                       |
| <b>9. Floor Washing - cleaning of floors in the PFPR operations areas.</b>   | 9.a.   |                      |                  |                                  |   |                                   |                                       |
|  | 9.b.   |                      |                  |                                  |   |                                   |                                       |
|  | 9.c.   |                      |                  |                                  |   |                                   |                                       |

<sup>1</sup> Stream types marked with an asterisk ("\*") do not require treatment prior to discharge to a POTW under the final PFPR pretreatment standards; however, facilities may be required to perform pretreatment by the control authority to meet local limits. Stream types marked with a plus ("+") do not require treatment prior to discharge to a POTW if they have not been commingled with stream types that do require pretreatment.

<sup>2</sup> HD = hydrolysis, AC = activated carbon, PT = precipitation, CO = chemical oxidation, P2 = pollution prevention, OT = other \_\_\_\_\_

**Table D: Identification of Wastewater Sources and Treatment Technologies**

| <b>Facility:</b> _____  |        |                      |                  | <b>Location:</b> _____           |   |                                   |                                       |
|---|--------|----------------------|------------------|----------------------------------|---|-----------------------------------|---------------------------------------|
| <b>Date:</b> _____  |        |                      |                  | <b>Prepared by:</b> _____        |   |                                   |                                       |
| Stream Type <sup>1</sup>  | Source | Potential Pollutants |                  | Wastewater Treatment Information |   |                                   | Characteristics That Hinder Treatment |
|   |        | Active Ingredients   | Other Pollutants | Table 10 Technology <sup>2</sup> | Alternate Treatment Technology <sup>2</sup> | Source for Alternative Technology |                                       |
| <b>10. Leaks and Spills - cleaning of leaks and/or spills which occur during PFPR operations.</b>   | 10.a.  |                      |                  |                                  |   |                                   |                                       |
|   | 10.b.  |                      |                  |                                  |   |                                   |                                       |
| <b>*11. Safety Equipment Cleaning - cleaning of personal protective equipment (e.g., gloves, splash aprons, boots, respirators) worn by employees in PFPR operations areas.</b> | 11.a.  |                      |                  |                                  |   |                                   |                                       |
|   | 11.b.  |                      |                  |                                  |   |                                   |                                       |
| <b>*12. Air Pollution Control Scrubbers - wet scrubbers used to control air emissions from PFPR operations.</b>   | 12.a.  |                      |                  |                                  |   |                                   |                                       |
| <b>*13. Laboratory Equipment Cleaning - Initial rinse of the retain sample container.</b>   | 13.a.  |                      |                  |                                  |   |                                   |                                       |

<sup>1</sup> Stream types marked with an asterisk ("\*") do not require treatment prior to discharge to a POTW under the final PFPR pretreatment standards; however, facilities may be required to perform pretreatment by the control authority to meet local limits. Stream types marked with a plus ("+") do not require treatment prior to discharge to a POTW if they have not been commingled with stream types that do require pretreatment.

<sup>2</sup> HD = hydrolysis, AC = activated carbon, PT = precipitation, CO = chemical oxidation, P2 = pollution prevention, OT = other \_\_\_\_\_

**Table D: Identification of Wastewater Sources and Treatment Technologies**

|   |               |                             |                         |   |   |  |  |
|---|---------------|-----------------------------|-------------------------|---|---|--|--|
| <b>Facility:</b> _____  |               |                             |                         | <b>Location:</b> _____                  |   |  |  |
| <b>Date:</b> _____  |               |                             |                         | <b>Prepared by:</b> _____               |   |  |  |
|   |               | <b>Potential Pollutants</b> |                         | <b>Wastewater Treatment Information</b> |   |  |  |
| <b>Stream Type<sup>1</sup></b>  | <b>Source</b> | <b>Active Ingredients</b>   | <b>Other Pollutants</b> | <b>Table 10 Technology<sup>2</sup></b>  | <b>Alternate Treatment Technology<sup>2</sup></b> | <b>Source for Alternative Technology</b> | <b>Characteristics That Hinder Treatment</b> |
| <i>Other streams <u>not</u> specifically included in the P2 Alternative</i>   |               |                             |                         |   |   |  |  |
| <b>*14. Contaminated Precipitation Runoff</b> - runoff from raw material storage, loading pads, final product storage, and outdoor production areas.  | 14.a.         |                             |                         |   |   |  |  |
|   |               |                             |                         |   |   |  |  |
|   | 14.b.         |                             |                         |   |   |  |  |
| <b>*15. Laboratory Equipment Cleaning</b> - Water used to clean analytical equipment and glassware.   | 15.a.         |                             |                         |   |   |  |  |
| <b>*16. Aerosol (DOT) Leak Testing</b> - Water used in non-continuous overflow baths to perform aerosol leak tests for DOT requirements when no cans have burst from the last water change out. | 16.a.         |                             |                         |   |   |  |  |
|   | 16.b.         |                             |                         |   |   |  |  |
| <b>17. Other Sources</b> - other sources of waste not specifically mentioned (please specify).  | 17.a.         |                             |                         |   |   |  |  |
|   | 17.b.         |                             |                         |   |   |  |  |
|   | 17.c.         |                             |                         |   |   |  |  |

<sup>1</sup> Stream types marked with an asterisk ("\*") do not require treatment prior to discharge to a POTW under the final PFPR pretreatment standards; however, facilities may be required to perform pretreatment by the control authority to meet local limits. Stream types marked with a plus ("+") do not require treatment prior to discharge to a POTW if they have not been commingled with stream types that do require pretreatment.

<sup>2</sup> HD = hydrolysis, AC = activated carbon, PT = precipitation, CO = chemical oxidation, P2 = pollution prevention, OT = other \_\_\_\_\_

### Table E: Summary and Evaluation of Test Results

[illegible]

Table E: Summary and Evaluation of Test Results

| Facility: _____ |                      | Location: _____                 |                  |       |       |       |                           |                 |                      |       |                            |
|-----------------|----------------------|---------------------------------|------------------|-------|-------|-------|---------------------------|-----------------|----------------------|-------|----------------------------|
| Date: _____     |                      | Prepared by: _____              |                  |       |       |       |                           |                 |                      |       |                            |
| Technology      | Primary Constituents | Design and Operating Parameters |                  |       |       |       | Constituent Concentration |                 | Performance Measures |       | Effectively Treated? (Y/N) |
|                 |                      | pH                              | Temperature (°C) | Other | Other | Other | Influent (ug/L)           | Effluent (ug/L) | Percent Removal      | Other |                            |
|                 |                      |                                 |                  | _____ | _____ | _____ |                           |                 |                      | _____ |                            |
|                 |                      |                                 |                  |       |       |       |                           |                 |                      |       |                            |
|                 |                      |                                 |                  |       |       |       |                           |                 |                      |       |                            |
|                 |                      |                                 |                  |       |       |       |                           |                 |                      |       |                            |
|                 |                      |                                 |                  |       |       |       |                           |                 |                      |       |                            |
|                 |                      |                                 |                  |       |       |       |                           |                 |                      |       |                            |
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|                 |                      |                                 |                  |       |       |       |                           |                 |                      |       |                            |
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|                 |                      |                                 |                  |       |       |       |                           |                 |                      |       |                            |
|                 |                      |                                 |                  |       |       |       |                           |                 |                      |       |                            |
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|                 |                      |                                 |                  |       |       |       |                           |                 |                      |       |                            |
|                 |                      |                                 |                  |       |       |       |                           |                 |                      |       |                            |
|                 |                      |                                 |                  |       |       |       |                           |                 |                      |       |                            |